

MAGNETIC DEVICE FOR A MAGNETIC TRIP UNIT

Abstract of Disclosure

A method and magnetic trip unit for actuating a latching mechanism to trip a circuit breaker upon an overcurrent condition, the magnetic trip unit including: a first electrically conductive strap configured to conduct an electrical current; a first magnetic yoke disposed proximate to the first electrically conductive strap; and a first armature pivotally disposed proximate to the first magnetic yoke in operable communication with the latching mechanism; the first armature providing a magnetic path having a reluctance to magnetic flux; and the reluctance is adjusted to prevent saturation of the magnetic flux when the current through the strap is a first number times a rated current of the circuit breaker and the reluctance is adjusted to promote saturation of magnetic flux when the current through the strap is a second number times the rated current of the circuit breaker, wherein the first number is a number smaller than the second number.